

10/562308

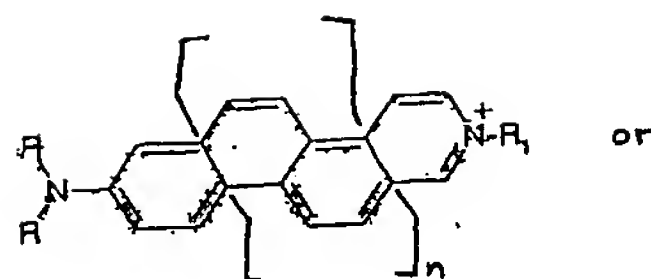
1AP17 Rec'd PCT/PTO 23 DEC 2005

Amendments to the Claims

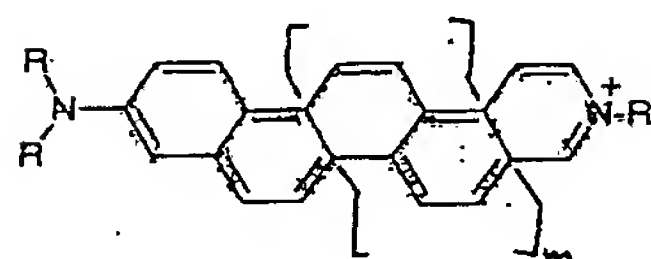
This listing of claims will replace all prior version and listings of claims in the application:

Listing of Claims:

1. (Currently amended): A method of determining voltage changes by means of a voltage-sensitive dye, characterized in that the voltage-sensitive dye is irradiated with light having a wavelength at which the dye has an absorption $\leq 20\%$ of its absorption maximum and the fluorescence caused by irradiation with light is measured.
2. (Original): The method according to claim 1, characterized in that the wavelength of the irradiated light is such that the dye has an absorption of $\leq 12\%$, in particular $\leq 8\%$ and preferably $\leq 2\%$ of its absorption maximum at said wavelength.
3. (Original): The method according to claim 1, characterized in that the wavelength of the irradiated light is in the longer wavelength range, related to the absorption maximum.
4. (Currently amended): The method according to claim 1 ~~any of the preceding claims~~, characterized in that an increase or decrease of the fluorescence is measured.
5. (Currently amended): The method according to claim 1 ~~any of the preceding claims~~, characterized in that it is used to determine voltage changes in cells.
6. (Currently amended): The method according to claim 1 ~~any of the preceding claims~~, characterized in that it is used to determine voltage changes in membranes, especially cell membranes.
7. (Currently amended): The method according to claim 1 ~~any of the preceding claims~~, characterized in that, as voltage-sensitive dye, a compound of formula (I)



or formula (II)



is used, wherein

each R independently is a hydrocarbon residue, which optionally can be substituted with hydroxyl,

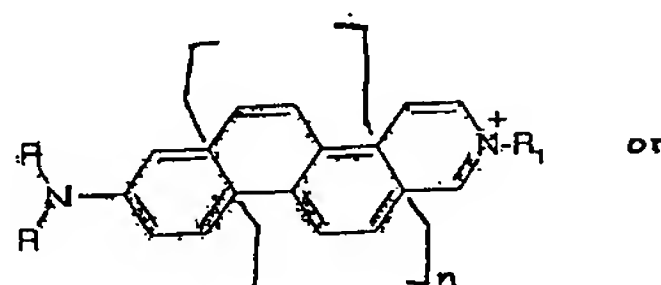
R¹ is a monovalent residue,

n is an integer from 1 to 9, and

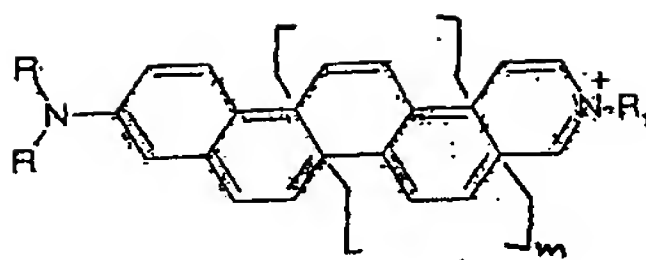
n is an integer from 0 to 8,

which compounds optionally can have one or more substituents at ring carbon atoms.

8. (Currently amended): The method according to claim 1 ~~any of the preceding claims~~, characterized in that ANNINE-4, ANNINE-5, ANNINE-6, ANNINE-7, ANNINE-8 or ANNINE-9 is used as a voltage-sensitive dye.
9. (Currently amended): The method according to claim 1 ~~any of the preceding claims~~, characterized in that a change of fluorescence radiation caused by the Stark effect is measured.
10. (Currently amended): The method according to claim 1 ~~any of the preceding claims~~, characterized in that a two-photon excitation is effected.
11. (Currently amended): Voltage-sensitive dye having the formula (I)



or formula (II)



wherein

each R independently is a hydrocarbon residue, which optionally can be substituted with hydroxyl,

R¹ is a monovalent residue,

n is an integer from 1 to 9, and

n is an integer from 0 to 8,

which compounds optionally can have one or more substituents at ring carbon atoms.